2009 Consumer Confidence Report

Water System Name: **MD-33, Fairmead** Report Date: 6/17/10

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2009.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Two wells drawing water from an underground aquifer

Name & location of source(s): Wells 1 & 2 are both located within the Fairmead Maintenance District

Drinking Water Source Assessment information: A source water assessment was conducted for both Fairmead wells in March 2002. While no contaminants exceeding current MCLs were found, the assessment identified septic systems in the area, as well as the Madera County Landfill, located about two miles away as having potential for outside contamination. A copy of the complete assessment may be viewed at the Madera County Environmental Health Department or by visiting the State's website, www.dhs.ca.gov/ps/ddwem/technical/dwp/source_info/source_index.htm

Time and place of regularly scheduled board meetings for public participation: Meetings are held at 9:00 a.m. each Tuesday, except the fifth Tuesday of any month, at the Board of Supervisors Chambers: 200 W 4th Street, Madera Visit the County website, www.madera-county.com/supervisors/agenda.html for a copy of the agenda.

For more information, contact: Julio Padilla Phone: (559) 675-7820

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 1	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) – 2008	5	<5	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) – 2008	5	0.069	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	5 & 10/08	17.9	15.8 – 22.8	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	5 & 10/08	88	79.2 - 96	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Any violation of an MC or AL is asterisked. Additional information regarding the violation is provided later in this report.*

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Arsenic (ppb)	10/08	2.3	<2 - 2.3	10	.004	Erosion of natural deposits; runoff from orchards; glass & electronics production wastes
Barium (ppm)	5 & 10/08	0.14	0.12 – 0.14	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Cadmium (ppb)	10/08	2.3	<1 – 2.3	5	0.04	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries
Chromium (ppb)	5 & 10/08	21.6	8.5 – 43.5	50	(100)	Discharge from steel & pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	5 & 10/08	0.1	0.1	2.0	1	Erosion from natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	9/09	15.9	14.9 – 16.9	45	45	Runoff & leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Trihalomethanes (ppb)	5/08	18.9	18.9	80	N/A	By-product of drinking water chlorination

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Aluminum (ppb)	5 & 10/08	163.2	<50 – 342	200	N/A	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	5 & 10/08	28.9	26.3 – 30.7	500	N/A	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	5 & 10/08	**3930***	<100–10200	300	N/A	Leaching from natural deposits; industrial wastes
Manganese (ppb)	5 & 10/08	44.9	<20 – 56	50	N/A	Leaching from natural deposits
Specific Conductance (µMHO/cm)	3, 5 & 10/08	263.3	200 – 320	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	5 & 10/08	3.8	3 – 4.6	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	5 & 10/08	202.5	190 – 210	1000	N/A	Runoff/leaching from natural deposits
Turbidity (Units)	5 & 10/08	**29.1***	0.4 – 95	5	N/A	Soil runoff
Zinc (ppm)	5 & 10/08	0.8	<.05 – 1.5	5.0	.05	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Health Effects Language**
Vanadium (ppb)	5/04	21		50	The babies of some women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals
Chromium VI or Hexavalent Chromium (ppb)	2 & 8/03	4.77		N/A	N/A

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by and other microbial and other contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791

Summary Information for Contaminants Exceeding an MCL, MRDL, or AL, or a Violation of Any Treatment Technique or Monitoring and Reporting Requirement

We are required by drinking water regulations to *monitor* your drinking water for specific contaminants on a regular basis. The results of regular monitoring are indicators of whether or not your drinking water meets all health standards. As shown by the tables, the Fairmead system continues to have **secondary standards** violations. ***Iron** was found at a level exceeding the MCL of 300 ppb, The Iron MCL was set to protect you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. The high levels are due to leaching of natural deposits and soil run-offs. ***Turbidity** exceeded the 5 units MCL and caused by the oxidation of iron in the water. Violation of secondary MCLs do not pose a risk to public health and communities may choose whether or not to treat for them.

In 2009, the Fairmead Water System had no primary violations. We're proud that **your drinking water meets or exceeds** all Federal and State requirements. Though we've learned through our monitoring and testing that some contaminants have been detected, the EPA has determined that your water IS SAFE at these levels.

In 2008 there was a failure to meet the **monitoring requirement** for Synthetic Organic Chemicals (SOC). The SOCs specifically include simazine, atrazine, alchalor, DBCP, and Ethlyenedibromide. Failing to monitor leaves the potential for contamination to have occurred and not be detected. The wells are required to be tested for these SOCs every 3 years. SOC monitoring was performed on the wells in 2009 and 2010, the results showed levels were non detectable for all SOCs. Even though subsequent tests show the water meet drinking water standards, you have a right to know of this monitoring violation.

In January 2008, both wells failed causing a water system outage. The county obtained a $1,000,000 Community Development Block Grant for construction of a 212,000 gallon water storage facility and related improvements. The project is underway and scheduled to be completed by fall 2010. In March 2010, Madera County on-behalf of the Fairmead Water System, submitted a Safe Drinking Water State Revolving Fund Application for planning funding to an additional well for your community. We are meeting and working with community members and their representatives to implement these improvements and plan for the future. Community participation and input is always important and encouraged.

We hope you find this report informative and helpful. Please call our office if you have questions. The County of Madera works continuously to provide the best available water to every tap. We ask that you, our customers, help us protect our water resources. Water is the heart of our community, our way of life and our future.